

## **REMARKS**

This is responsive to the Office Action mailed March 8, 2004, relating to the above-identified application. Applicant respectfully traverses and requests reexamination and reconsideration. Claims 1-4 and 6-20 remain pending.

### **Claim Amendments**

Applicant cancels claim 5, without prejudice.

Applicant respectfully submits amended claims 1, 12, 16 and 20 for Examiner's consideration. These claims have been amended to recite further limitations regarding the designated structure of the monopole array, specifically that the monopole elements of the monopole array are electrically coupled to each other using the micro-strips traces. It is submitted that this does present any new subject matter, but rather this limitations is originally disclosed at, among other places, Para 22, final sentence, and FIG. 4. Entrance and examination of these claims is respectfully requested.

### **Rejection of Claims Under 35 U.S.C. 103(a)**

#### **Claims 1 and 4-5**

Claims 1 and 4-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,329,954 (hereinafter referred to as "Fuchs"). Applicant respectfully traverses and submits the present rejection as being improper and should be withdrawn.

Regarding claim 5, as claim is herein cancelled without prejudice, this rejection is moot. Withdrawal of the present rejection is respectfully requested.

For the sake of brevity, Applicants respectfully resubmit the previously offered position regarding the teachings of Fuchs, as noted in the response filed on December 23, 2003:

In present rejection, the Examiner indicates that Fuchs fails to teach or suggest the claims printed circuit board (pcb) having a ground plane on an upper surface and lower surface micro-strip traces disposed on a lower surface. The Examiner further asserts that it would have been obvious to position the ground plane towards the antenna, to which Applicants respectfully disagree because the teachings of Fuchs fail to indicate that the printed circuit board has a ground plane side. As recognized by one having ordinary skill in the art, a printed circuit board does not inherently contain a ground plane, but rather may contain traces on both sides of the pcb. As noted above, the full teachings of Fuchs regarding the pcb consists of: "the board 132 also carries devices electrically connected to the antenna elements and providing appropriate amplification of the signals received by the elements." (see col. 4, lines 15-18). Although, the Examiner notes this point as minor, Applicants submit, as noted below, this provides further support for teachings lacking in Fuchs.

Claim 1, as amended, recites limitations to the monopole elements of the monopole array being electrically coupled. As noted above, Fuchs is silent regarding the structure of the pcb 132, but rather relies on the general statement that the "board 132 is otherwise generally well known to those skilled in the art." (see col. 4, lines 18-19). Therefore, at best Fuchs discloses the pcb may be a standard pcb board, but Fuchs fails to teach or suggest the monopole array being electrically coupled together.

On page 2 of the present office action, the Examiner asserts this limitations is taught by Fuchs, as recited in the Abstract. Applicant respectfully disagrees because the Abstract merely states “a plurality of monopoles for receiving linearly polarized terrestrial signals. The monopoles are arranged symmetrically about the cross-dipole.” The abstract teaches the alignment of the monopoles, but fails to teach or suggest the connectivity of the monopole elements.

Therefore, Applicant submits that Fuchs fails to teach or suggest of all the claimed limitations of claims 1 and 4 in combination with Examiner’s noted obviousness of positioning a ground plane of the pcb towards the antenna. Fuchs fails to teach or suggest the claimed ground plane, but rather provides a broad and vague reference to a printed circuit board. Fuchs also fails to teach or suggest the connectivity of the monopole elements. As claims 1 and 4 explicitly recite limitations directed to the coupling of the monopole elements, the present rejection is thereby improper. Reconsideration and withdrawal of the present rejection is respectfully requested.

#### Rejection of claims 2-3 and 6-20

Claims 2-3 and 6-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fuchs in view of U.S. Patent No. 6,300,917 (hereinafter referred to as “Leisten”). Applicant respectfully traverses and submits the present rejection as being improper and should be withdrawn.

Regarding claims 12, 16 and 20, Applicants respectfully resubmit the above-offered position regarding claim 1. As stated above, Fuchs fails to

teach or suggest the claimed monopole elements being electrically coupled via lower surface micro-strip traces. Therefore, the combination of Fuchs with Leisten will still produce a system failing to teach or suggest the electrical coupling of monopole elements of the monopole array. Therefore, for at least the reasons stated above, it is submitted the present rejection is improper. Reconsideration and withdrawal is respectfully requested.

Regarding claims 2-3, 6-11, 13-15 and 17-19, Applicants respectfully resubmit the above offered position regarding claims 1, 12 and 16 respectively. It is submitted that claims 2-3, 6-11, 13-15 and 17-19 contain further patentable subject matter and are allowable not merely as being dependent upon allowable base claims. Therefore, reconsideration and withdrawal of the present rejection is respectfully requested.

### **CONCLUSION**

Accordingly, Applicant respectfully submits that the claims are in condition for allowance and request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Dated: June 7, 2004

Respectfully submitted,

By: 

Michael J. Turgeon  
Reg. No. 39,404

Vedder, Price, Kaufman & Kammholz, P.C.  
222 North LaSalle Street, Ste. 2400  
Chicago, Illinois 60601-1003  
(312) 609-7716